

REMARKS

Claims 4 and 5 have been amended. Claims 1-6 are pending in the application.

In view of the foregoing amendments and the following remarks, re-examination, reconsideration, and allowance of the present application are respectfully requested.

Rejections under 35 U.S.C. §112, second paragraph

Claim 4 has been amended to depend from Claim 1 and Claim 5 has been amended to depend from Claim 2. These amendments are believed to overcome the rejection of Claim 4 under 35 U.S.C. §112, second paragraph and the objections to Claims 5 and 6 as being substantial duplicates of Claims 3 and 4. Accordingly, Applicants request withdrawal of the rejection of Claim 4 and the objection to Claims 5 and 6.

Rejections under 35 U.S.C. §103(a)

The Office Action set forth a rejection of independent Claim 1 and dependent Claims 3 and 5 under 35 U.S.C. §103(a) as being obvious based on laid-open Japanese patent application JP 409119177A to Onishi et al. (Onishi '177). The Office Action also sets forth a rejection of independent Claim 2 and dependent Claims 4 and 6 based on Onishi laid open Japanese patent application JP 409111909 to Onishi et al. (Onishi '909) in view of the disclosure of Onishi '177.

Each of the claims has been rejected under 35 U.S.C. §103(a) based solely on English-language Abstracts of Japanese-language documents Onishi '177 and Onishi '909. Machine language translations of parts of the Onishi '177 and '909 documents are available on the Japan Patent Office website. Although these machine translations are not very clear, a review of these documents found that the Examples in the body of Onishi '177 and '909 have material properties which are outside of the claimed ranges recited in the claims. These properties are discussed more fully below. If the Examiner believes that Onishi '177 and '909 are relevant to the claims after reviewing the following paragraphs, he is requested to provide a complete translation of each of the relied-upon documents to the Applicants for

clarification of the rejections and so that the teachings of the documents as a whole may be evaluated.

Independent Claim 1 is directed to a sound deadening board which comprises a layer of structural skin and a layer of sound deadening material. The sound deadening material has an equivalent Young's modulus between 50 and 600 psi and is attached to the layer of structural skin.

The Office Action points to item 1 in Onishi '177 Figure 1 as corresponding to claimed layer of structural, and points to item 2 in Onishi '177 Figure 1 as corresponding to the claimed layer of sound-deadening material with an equivalent Young's modulus of between 50 and 600 psi.

However, it appears that the Abstract does not very accurately reflect the disclosure of Onishi '177. Based on the machine-translation, it appears that one layer in Onishi '177 has a Young's modulus A, and another layer in Onishi '177 has a Young's modulus B. In each of the Onishi '177 examples 1 and 2, the overall material has a Young's modulus of $10^6 \text{ N/m}^2 - 10^8 \text{ N/m}^2$ (145 to 14500 psi) and a density of $200\text{-}500 \text{ kg/m}^3$ (corresponding to $12\text{-}18 \text{ lb/ft}^3$). Neither of the Examples has materials with the material properties set forth in the claims.

In the Onishi '177 examples, the material having the Young's modulus B is a rock wool fiber designated as 13 in Drawing 6, and as 15 in Drawing 8. The rock wool fiber layer in Examples 1 and 2 (Drawings 6 and 7) of Onishi '177 has a Young's modulus $3 \times 10^3 \text{ N/m}^2$ (0.5 psi), which is well outside of the claimed range of $50\text{-}600 \text{ N/m}^2$.

The Onishi '177 material with a Young's modulus A is a layer of rock wool acoustic tile (14 in Drawing 6 and 17 in Drawing 7) having a Young's modulus of $7 \times 10^6 \text{ N/m}^2$ (1675 psi) and a density of 400 kg/m^3 (approx 25 lb/ft^3). Thus, this layer also cannot correspond to the sound deadening board set forth in Claim 1.

For an obviousness determination, the prior art must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L.*

Gore & Assoc., Inc. v. Garlock, Inc., 220 USPQ 303, 313 (Fed. Cir. 1983), *cert denied* 469 US 851, 1984. It is respectfully submitted that the disclosure in the Onishi '177 Abstract is insufficient by itself to establish a prima facie case of obviousness of Claim 1, particularly in view of the contrasting examples in the body of Onishi '177.

Independent Claim 2 stands rejected as being obvious under 35 U.S.C. 103(a) based on of laid-open Japanese patent application document JP 409111909 to Onishi et al. (Onishi '909) in view of Onishi '177. For at least the following reasons, withdrawal of this rejection is respectfully requested.

Claim 2 is directed to a building component assembly comprising at least one assembly framing member and at least one combination sound-deadening board. The combination sound-deadening board is a single laminate structure comprising a structural skin layer attached to a sound-deadening material, the sound-deadening material having an equivalent Young's Modulus between 50 and 600 psi. The at least one combination sound-deadening board is attached to the assembly framing member such that the sound-deadening material faces the assembly framing member.

The Office Action points to the porous surface board 1 of Onishi '909 as corresponding to the claimed skin layer, and to the sheet-like substance 2 of Onishi '909 as corresponding to the claimed sound-deadening material. The Office Action acknowledges that Onishi '909 does not disclose a sound-deadening material having an equivalent Young's modulus of between 50 and 600 psi, and relies upon the porous material 2 of Onishi '177 to remedy this deficiency.

It is respectfully submitted that the motivation to replace the sheet-like substance 2 of Onishi '909 with the porous material 2 of Onishi '177 cannot be found within the Abstracts of Onishi '909 or '177. The Office Action asserts that one would have been motivated to replace the sheet-like substance 2 of Onishi '909 with the material of Onishi '177 because the "sound deadening material having an equivalent Young's modulus between 50 and 600 psi would provide a high sound absorbing material in a low frequency area even with a thin

thickness of the material”, apparently based on the Onishi ‘177 Abstract. However, there is no indication in the Onishi ‘177 Abstract that it is the Young’s modulus of the layer 2 which provides the high sound absorption at a low frequency. Indeed, it appears that the powder layer provides the high sound absorption at low frequency in Onishi ‘177, rather than the layer 2. Thus, the language in the Onishi ‘177 Abstract cannot provide any motivation to modify the Onishi ‘909 to have the claimed equivalent Young’s modulus.

Moreover, as explained in the earlier paragraphs addressing Claim 1, the material in Onishi ‘177 appears to be a rock wool fiber layer with a Young’s modulus outside of the claimed range. Therefore, Onishi ‘177 cannot remedy the deficiencies of Onishi ‘909.

For at least the foregoing reasons, it is respectfully submitted that the Onishi ‘177 and ‘909 Abstracts are insufficient to establish a *prima facie* case of obviousness of Claim 2. Withdrawal of the rejection of Claim 2 is respectfully requested.

Claims 3-6 are allowable for at least the same reasons that Claims 1 and 2 are allowable. Nonetheless, a few comments regarding Claims 4 and 6 are provided to expedite prosecution.

Claims 4 and 6 recite that the sound deadening the board has a weight density of between about 9 and about 14 pounds per cubic foot. The Office Action asserts that the material 2 of Onishi has a density within the claimed range. However, the range in the Abstract ($< 100 \text{ kg/m}^3$) is outside of the claimed range of between about 9 and about 14 pounds per cubic foot. In addition, the rock wool fiber in the Examples of Onishi ‘177 has a density of 24 kg/m^3 , which is well outside of the claimed range of 9 and 14 pounds per cubic foot. Therefore, Claims 4 and 6 are neither anticipated nor obvious over the combined disclosures of Onishi ‘177 and ‘909.

For at least the foregoing reasons, withdrawal of the rejections of Claims 1-6 is respectfully requested. As discussed above, the Examiner is requested to consider a complete translation of the documents relied upon, and provide the same to the Applicants.

C nclusion

Further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is respectfully requested. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at the below listed telephone number.

Respectfully submitted,

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